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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,290	12/28/2001	Kazunori Yoshino	8350.0663-00	3082

7590 10/06/2003

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EXAMINER

LOPEZ, FRANK D

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 10/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,290

Applicant(s)

YOSHINO, KAZUNORI

Examiner

F. Daniel Lopez

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Claim Rejections - 35 USC § 112

Claims 6, 8 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, 8 and 11 line 3-4 "a pilot pump; a pilot relief valve" and line 10-11 "to provide fluid across the pilot relief valve and" should be deleted, since these limitations have already been claimed in claim 3, from which claims 6, 8 and 11 depends.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15 and 21 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Chung.

Claims 1, 15, 16 and 20 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Yoshimatsu (5,063,742).

Claims 1, 15, 18 and 20 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Stellwagen et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed

invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 3, 4, 18 and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick. Yoshimatsu (5,063,742) discloses a fluid control system and method of operating comprising a pressurized fluid source (1a) supplying pressurized fluid through respective ones of a plurality of spool type flow control valves (81, 82, 83, 2), to a plurality of double acting cylinders (see e.g. column 9 line 39-43) and a plurality of fluid driven motors (e.g. 3); a back pressure element (14) associated with a motor return line (13) providing fluid communication between the motor and a tank (15) and with a cylinder return line providing fluid communication between the cylinder and the tank, and influencing a fluid back pressure on fluid discharged from the motor and cylinder; a dedicated flow line configured to provide make up fluid to the motor at a location between the motor and the back pressure element; wherein the fluid source provides fluid across a main relief valve (12, e.g. fig 1) to the dedicated flow line; but does not disclose that a pilot pump provides fluid across a pilot relief valve and to the dedicated flow line.

Norick teaches, for a fluid control system and method of operating comprising a pressurized fluid source (14) supplying pressurized fluid to a fluid driven motor (12); a back pressure element (40) disposed between the motor and a tank (36), and influencing a fluid back pressure on fluid discharged from the motor; a dedicated flow line configured to provide make up fluid to the motor at a location between the motor and the back pressure element; wherein the fluid source provides fluid across a main relief valve (52) to the dedicated flow line; that a pilot pump (35) provides fluid across a pilot relief valve (54) and to the dedicated flow line, the purpose of the pilot pump being to control displacement of the pressure source, thereby increasing efficiency, with the purpose of the pilot relief valve to protect against over-pressurization of the system (e.g. column 4 line 11-13).

Since Yoshimatsu (5,063,742) and Norick are both from the same field of endeavor, the purpose disclosed by Norick would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was

made to one having ordinary skill in the art to include a pilot pump to provide fluid across a pilot relief valve and to the dedicated flow line of Yoshimatsu (5,063,742), as taught by Norick, the purpose of the pilot pump being to control displacement of the pressure source, thereby increasing efficiency, with the purpose of the pilot relief valve to protect against overpressurization of the system.

Claim 21 is rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Chung. Claims 5, 7, 9, 10, and 14 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick, as applied to claim 4, above, and further in view of Chung. Yoshimatsu (5,063,742) and the modified Yoshimatsu (5,063,742) discloses all of the elements of claims 21; and 5, 7, 9, 10, and 14, respectively; but does not disclose that the cylinder return line does not pass across the back pressure element.

Chung teaches, for a fluid control system and method of operating comprising a pressurized fluid source (P) supplying pressurized fluid to a fluid driven motor (1) and a double acting cylinder (connected to A, B and/or C, e.g. column 1 line 28-34); a back pressure element (3) disposed between the motor and a tank (T), and influencing a fluid back pressure on fluid discharged from the motor; a dedicated flow line (4) configured to provide make up fluid to the motor at a location between the motor and the back pressure element; and a cylinder return line connected between the cylinder and tank; disclose that the cylinder return line does not pass across the back pressure element, for the purpose of preventing undesired pressure loss for the cylinders (e.g. column 2 line 2-4).

Since Yoshimatsu (5,063,742) and Chung are both from the same field of endeavor, the purpose disclosed by Chung would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the cylinder return line of Yoshimatsu (5,063,742) not pass across the back pressure element, or the modified Yoshimatsu (5,063,742), as taught by Chung, for the purpose of preventing undesired pressure loss for the cylinders.

Claims 2 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Yoshimatsu (5,062,266). Claims 6, 8 and 11 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick and Chung, as applied to claims 5, 7, and 10, respectively, above, and further in view of Yoshimatsu (5,062,266). Yoshimatsu (5,063,742) and the modified Yoshimatsu (5,063,742) discloses all of the elements of claims 2 and 17; and 6, 8, and 11, respectively; but does not disclose that the main relief valve is a combination main relief and bypass valve.

Yoshimatsu (5,062,266) teaches, for a fluid control system and method of operating comprising a pressurized fluid source (1) supplying pressurized fluid to a fluid driven motor (6); a back pressure element (72) disposed between the motor and a tank (7), and influencing a fluid back pressure on fluid discharged from the motor; a dedicated flow line configured to provide make up fluid to the motor at a location between the motor and the back pressure element; wherein the fluid source provides fluid across a main relief valve (17) to the dedicated flow line; that the main relief valve is a combination main relief and bypass valve (17, in combination with 18), for the purpose of unloading the pressure source, when not needed to provide pressurized fluid (e.g. column 4 line 2-8).

Since Yoshimatsu (5,063,742) and Yoshimatsu (5,062,266) are both from the same field of endeavor, the purpose disclosed by Yoshimatsu (5,062,266) would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the main relief valve of Yoshimatsu (5,063,742), or the modified Yoshimatsu (5,063,742) a combination main relief and bypass valve, as taught by Yoshimatsu (5,062,266), for the purpose of unloading the pressure source, when not needed to provide pressurized fluid.

Claims 12 and 13 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick, ^{and} Chung ~~and Yoshimatsu (5,062,266)~~, as applied to claim ¹⁰11, above, and further in view of Krusche. The modified Yoshimatsu

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(5,063,742) discloses all of the elements of claims 12 and 13; but does not disclose that each of the plurality of flow control valves include a pair of meter-in valves and a pair of meter-out valves.

Krusche teaches, for a fluid control system comprising a pressurized fluid source (1) supplying pressurized fluid to a fluid driven motor (e.g. 108, 109) through a flow control valve; the equivalence of a spool type flow control valve (128, fig 10) and a flow control valve including include a pair of meter-in valves (118, 119, fig 9) and a pair of meter-out valves (unnumbered, fig 9).

Since the flow control valves of Yoshimatsu (5,063,742) are spool type, and Krusche teaches the equivalence of spool type flow control valves and flow control valves including a pair of meter-in valves and a pair of meter-out valves; it would have been obvious at the time the invention was made to one having ordinary skill in the art to replace the spool type flow control valves of the modified Yoshimatsu (5,063,742) with flow control valves which include a pair of meter-in valves and a pair of meter-out valves, as taught by Krusche, as a matter of engineering expediency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (703) 308-0008. The examiner can normally be reached on Monday-Thursday from 6:30 AM -4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on (703) 308-1044. The fax number for this group is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.



F. Daniel Lopez
Primary Examiner
Art Unit 3745
October 1, 2003